## Claims

1. Process for preparing a compound of the formula (I)

$$S$$
  $S$   $F$   $(I)$ 

where

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R is H or F,

10 characterized in that

(a) a compound of the formula (II)

15 where

R is H or F and

X is bromine, chlorine, mesylate or tosylate,

is reacted with a compound of the formula (III)

 $M^+$  SCN (III)

where

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M<sup>+</sup> is hydrogen, an ammonium ion, a tetraalkylammonium ion or an alkali metal or alkaline earth metal ion

optionally in the presence of a reaction auxiliary and optionally in the presence of a diluent to give compounds of the formula (IV)

$$F \xrightarrow{R} S$$
  $CN$   $(IV)$ 

where

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R is as defined above,

(b) the latter is then converted by adding hydrogen sulphide or salts thereof,

optionally in the presence of a reaction auxiliary and optionally in the presence of a diluent,

to a compound of the formula (V)

where

R is as defined above,

25 and

(c) the latter is reacted with acetaldehyde, chloroacetaldehyde (ClCH<sub>2</sub>CHO) or the acetals or cyclic acetals thereof, optionally in the presence of an acidic reaction auxiliary and optionally in the presence of a diluent.

2. Process for preparing a compound of the formula (IV)

where

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R is as defined above,

characterized in that compounds of the formula (II)

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where

R and X are as defined in Claim 1

are reacted with a thiocyanate salt of the formula (III)

where

M<sup>+</sup> is as defined in Claim 1,

optionally in the presence of a reaction auxiliary and optionally in the presence of a diluent.

3. Process for preparing compounds of the formula (V)

F S SH (V)

where

R is as defined in Claim 1,

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characterized in that a compound of the formula (IV)

where

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R is as defined in Claim 1

is reacted with hydrogen sulphide or salts thereof, optionally in the presence of a reaction auxiliary and optionally in the presence of a diluent.

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4. Process for preparing a compound of the formula (I) according to Claim 1, characterized in that a compound of the formula (V)

where

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n	:	1 - C		C1 .	4
K	is as	denne	a in	Claim	- 1

- is reacted with acetaldehyde, chloroacetaldehyde (ClCH<sub>2</sub>CHO) or acetals thereof, optionally in the presence of a diluent and optionally in the presence of an acidic reaction auxiliary.
- 5. Process according to Claim 1 or 2, characterized in that a compound of the formula (II) is reacted with HSCN in the presence of a base.
  - 6. Process according to Claim 1 or 2, characterized in that a compound of the formula (II) is reacted with NH<sub>4</sub>SCN.
- 7. Process according to Claim 6, characterized in that the diluent used in the reaction is an alcohol.
  - 8. Process according to Claim 1 or 3, characterized in that a compound of the formula (IV) is reacted with H<sub>2</sub>S.
  - 9. Process according to any of Claims 1, 3 and 8, characterized in that the reaction is carried out in the presence of a base.
- Process according to Claim 1 or 4, characterized in that a compound of the formula (V) is reacted with chloroacetaldehyde dialkyl acetal.
  - 11. Process according to any of Claims 1, 4 and 10, which is carried out in the presence of an acid.
- Process according to Claim 1 or 4, characterized in that a compound of the formula (V) is reacted with chloroacetaldehyde or acetals thereof in the

presence of from 0.1 to 10 mol% of p-toluenesulphonic acid or methanesulphonic acid.

- 13. Process according to Claim 1 or 4, characterized in that a compound of the formula (V) is reacted with acetaldehyde.
- 14. Process according to any of Claims 1 to 13, characterized in that R is fluorine.
- 15. Compounds of the formula (IV)

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where

R is as defined in Claim 1.

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16. Compounds of the formula (V)

and salts thereof

where

R is hydrogen.